The Influence of Cultural Individualism-Collectivism, Self Construals, and Individual Values on Communication Styles Across Cultures

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Individualism-collectivism has a direct effect on communication styles and an indirect effect that is mediated through self construals and values. It was hypothesized that cultural individualism-collectivism, self construals, and values would have separate effects on individuals' use of low- and high-context communication styles. As predicted, the results of this study suggest that independent self construals and individualistic values mediate the influence of cultural individualism-collectivism on the use of low-context communication, and interdependent self construals and collectivistic values mediate the influence of cultural individualism-collectivism on the use of high-context communication. The patterns for cultural individualism-collectivism were not as clear-cut. The findings suggest that individual level factors (i.e., self construals and values) are better predictors of low- and high-context communication styles across cultures than cultural individualism-collectivism.

When individuals are socialized, they learn various patterns of interaction that are based on the norms, rules, and values of their culture. These patterns of interaction form the basis for individuals' communication styles. More specifically, communication styles

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involve "the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered, or understood" (Norton, 1978, p. 99). The styles individuals use to communicate vary across cultures and within cultures. One way to explain variations in styles is Hall's (1976) differentiation between low- and high-context communication.

Low-context communication involves the use of explicit and direct messages in which meanings are contained mainly in the transmitted messages (Hall, 1976). High-context communication, in contrast, involves the use of implicit and indirect messages in which meanings are embedded in the person or in the sociocultural context. Hall argues that people in a culture use both low- and high-context communication, but one tends to be predominant. Gudykunst and Ting-Toomey (1988) contend that low-context communication is used predominantly in individualistic cultures, whereas high-context communication is used predominantly in collectivistic cultures. Individualism involves a focus on the self as a unique entity, and collectivism involves a focus on the self embedded in group memberships (Triandis, 1988).

The culture in which individuals are raised influences the way individuals are socialized in terms of individualistic and collectivistic tendencies. Cultural individualism-collectivism (I-C) has a direct effect on communication because it affects the norms and rules that guide behavior in individualistic and collectivistic cultures. The individualistic or collectivistic tendencies that individuals learn when being socialized into their cultures in turn also influence individual-level factors such as the way individuals conceive of themselves (e.g., Markus & Kitayama, 1991) and the values individuals hold (e.g., Rokeach, 1973; Schwartz & Bilsky, 1987, 1990). Cultural I-C, therefore, has both a direct effect on communication behavior and an indirect effect on communication behavior that is mediated through individual-level factors such as self construals and values. The theoretical position outlined is summarized in Figure 1.

There is extensive research on how cultural I-C directly influences communication behavior (see Gudykunst & Ting-Toomey, 1988). Only recently, however, have researchers begun to look at how individual-level factors mediate the influence of cultural I-C on communication behavior. Singelis and Brown (1995), for example, found that self construals mediate the influence of cultural I-C on high-context communication across ethnic groups in Hawaii. To date, there is no research examining the influence of

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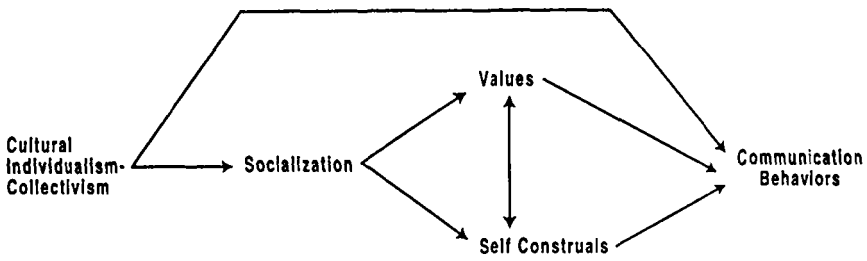

Figure 1: The Influence of Cultural Individualism-Collectivism on Communication Behavior

cultural I-C and the individual-level factors (i.e., self construals and individual values) that mediate the influence of cultural I-C on low- and high-context communication across cultures. The purpose of this study, therefore, was to fill this gap.

CULTURE AND BEHAVIOR

Keesing (1974) argues that culture provides its members with an implicit theory about how to behave in different situations and how to interpret others' behavior in these situations. He contends that culture is shared in "its broad design and deeper principles," but "that not every individual shares precisely the same theory of the cultural code" (p. 89). Members of cultures learn their implicit theories of their cultures when they go through the socialization process.

Members of different cultures learn different implicit theories to guide their behavior. Cross-cultural researchers (e.g., Chinese Culture Connection, 1987; Hofstede, 1980, 1991; Kluckhohn & Strodtbeck, 1961) suggest dimensions that can be used to explain similarities and differences in these implicit theories across cultures. I-C is the major dimension of cultural variability isolated by theorists across disciplines to explain similarities and differences in behavior (e.g., Chinese Culture Connection, 1987; Gudykunst & Ting-Toomey, 1988; Hofstede, 1980, 1991; Kluckhohn & Strodtbeck, 1961; Parsons & Shils, 1951; Triandis, 1988, 1990, 1995). Individualism *and* collectivism exist in all cultures, but one pattern tends to be predominant (Gudykunst & Ting-Toomey, 1988).

As members of individualistic cultures are socialized into their culture, they learn the major values of their culture (e.g., independence, achievement) and acquire preferred ways for how members of the culture are expected to view themselves (e.g., as unique persons). Members of collectivistic cultures learn different major values (e.g., harmony, solidarity) and

acquire different preferred ways to conceive of themselves (e.g., as interconnected with others). Members of individualistic and collectivistic cultures, however, do not just learn one set of values or just one way to conceive of themselves. Because individualism and collectivism exist in all cultures, members of individualistic cultures learn some collectivistic values and acquire views of themselves as interconnected with others, and members of collectivistic cultures learn some individualistic values and acquire views of themselves as unique persons (e.g., see Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985, for a discussion of collectivism in the United States; see Miyanaga, 1991, for a discussion of individualism in Japan).

Cultural I-C influences the major cultural values individuals learn and the ways members of cultures acquire conceptions of themselves. Cultural I-C has a direct influence on behavior (e.g., through norms/rules used to guide behavior), but it also influences behavior indirectly through the values and self construals that individual members learn when being socialized into the culture. To understand individual behavior, both cultural-level I-C and individual-level factors that mediate the influence of cultural I-C must be taken into consideration. In the remainder of this section, we overview the cultural- and individual-level influences that are affected by I-C (see Leung, 1989, for a discussion of the two levels).

Cultural I-C

Individualistic cultures emphasize the goals of the individual over group goals, whereas collectivistic cultures stress group goals over individual goals (Triandis, 1988). In individualistic cultures, individuals tend to assume responsibility only for themselves and their immediate family. In collectivistic cultures, individuals tend to belong to in-groups that look after them in exchange for the individuals' loyalty. In-groups are "groups of people about whose welfare one is concerned, with whom one is willing to cooperate without demanding equitable returns, and separation from whom leads to discomfort or even pain" (p. 75).

Triandis (1988) contends that in-groups are more important in collectivistic than in individualistic cultures. Lebra (1976), for example, points out that collectivism "involves cooperation and solidarity, and the sentimental desire for [a] warm . . . 'feeling of oneness' with fellow members of one's group" (p. 25). Triandis argues that the larger the number of in-groups, the narrower their influence and the less the depth of their influence. Because individualistic cultures have many specific in-groups, in-groups in individualistic cultures exert less influence on individuals' behavior than in-groups do in collectivistic cultures, where there are a few general in-groups. Triandis also suggests that members of collectivistic

cultures draw sharper distinctions between members of in-groups and out-groups than do members of individualistic cultures.

I-C has been sued widely to explain cultural differences in behavior (see Triandis, 1995, for a summary). Kashima (1989), however, points out that there are problems with using dimensions of cultural variability such as I-C to explain individual-level behavior. One of the problems involves developing causal explanations. Kashima argues that it is impossible to test causal explanations of behavior based on cultural-level explanations (e.g., culture cannot be controlled in an experiment). Kagitcibasi (1994) suggests that researchers need to isolate psychological processes that link culture to individual behavior to test causal explanations. Triandis (1989) and Markus and Kitayama (1991) suggest that the individuals' self construals mediate the influence of culture on behavior. Rokeach (1973) and Schwartz (1992, 1994a) contend that cultural influences on individuals' behavior are mediated by individuals' values.

Another problematic area is in mapping cultural I-C to specific samples drawn in individualistic and collectivistic cultures (Kashima, 1989). Virtually all theorists who discuss cultural I-C (e.g., Kluckhohn & Strodtbeck, 1961; Parsons & Shils, 1951; Triandis, 1995) recognize that both tendencies exist in all cultures. Kluckhohn and Strodtbeck, for example, point out that all cultures and subcultures use all three relational orientations they isolate (i.e., individualistic, collateral, and lineal), but one tends to be predominant in a culture or subculture. When specific samples are drawn in individualistic and collectivistic cultures, the respondents in the sample may not represent the predominant cultural I-C tendency.

Because individualism *and* collectivism exist in all cultures, broad cultural-level tendencies in I-C alone cannot be used to predict individuals' behavior. The individual-level factors that mediate the influence of cultural I-C on individual behavior also must be taken into consideration.

Factors That Mediate the Influence of Cultural I-C on Behavior

The influence of cultural I-C on individuals' behavior is mediated by their values and self construals.[1] Rokeach (1972) suggests that people have values if they have enduring beliefs "that a specific mode of conduct or end-state of existence is personally or socially preferable to alternative modes of conduct or end-states of existence" (pp. 159-160). Ball-Rokeach, Rokeach, and Grube (1984) argue that values are the central core to individuals' personalities and have a direct effect on behavior. They contend that values serve as the major component of the personality that helps individuals maintain and enhance their self-esteem.

Schwartz and Bilsky's (1987, 1990) theory of the content and structure of values suggests that the interests served by values can be individualis-

tic, collectivistic, or mixed. Schwartz (1992) contends that the value domains of power, achievement, self-direction, hedonism, and stimulation serve individual interests, whereas the value domains of tradition, conformity, and benevolence serve collective interests. Schwartz (1990) argues that individuals hold both individualistic and collectivistic values and that they are not necessarily in conflict. He believes that collectivistic values may serve the interests of the in-group or larger collectivities (e.g., the society) and that serving the interests of the collective is not necessarily at the expense of the individual.

Individuals learn their values through the socialization process. The values that are predominant in the culture influence the values that individuals learn, but individual value structures are different from cultural value structures (see Schwartz, 1994b).[2] Individuals' behavior is affected by cultural values and the individual values they hold. Cultural values provide broad guidelines about what are acceptable means for achieving end states in different situations. Individual values provide specific guidelines for behavior across situations (Feather, 1990). Feather (1995) demonstrated that the values individuals hold are linked to the valences they attach to different behaviors.

The influence of I-C on individuals' behavior also is mediated through the way individuals conceive of themselves (e.g., Kashima, 1989; Markus & Kitayama, 1991, 1994a, 1994b; Triandis, 1989), Triandis, for example, argues that cultural variations in I-C can be linked directly to the ways members of cultures conceive of themselves. The most widely used conceptualization of self construal is Markus and Kitayama's (1991) distinction between independent and interdependent self construals.

The independent construal of self involves the view that an individual's self is a unique, independent entity (Markus & Kitayama, 1991). Having the goal of independence "requires construing oneself as an individual whose behavior is organized and made meaningful primarily by reference to one's own internal repertoire of thoughts, feelings, and action, rather than by reference to the thoughts, feelings, and actions of others" (p. 226). The important tasks for people emphasizing an independent self construal are to be unique, strive for their own goals, express themselves, and be direct (e.g., "say what you mean"; Markus & Kitayama, 1991).

Markus and Kitayama (1991) point out that being interdependent "entails seeing oneself as part of an encompassing social relationship and recognizing that one's behavior is determined, contingent on, and, to a large extent organized by what the actor perceives to be the thoughts, feelings, and actions of *others* in the relationship" (p. 227). The self in relation to specific others guides behavior in specific social situations. The important tasks for people emphasizing an interdependent self construal are to fit in with the in-group, to act in an appropriate fashion, to promote

the in-group's goals, to occupy one's proper place, to be indirect, and to read other people's minds.

Members of individualistic cultures are socialized to rely predominantly on their independent self construal, and members of collectivistic cultures are socialized to rely predominantly on their interdependent self construals. Everyone, however, has both an independent and interdependent self construal (Singelis, 1994; Triandis, Leung, Villareal, & Clack, 1985). The two self construals are activated in different situations. Singelis and Brown (1995) demonstrated that the effect of the two self construals on behavior can be separated and that using an interdependent self construal is related to using high-context communication.

I-C AND COMMUNICATION STYLES

Gudykunst and Ting-Toomey (1988) argue that I-C affects the use of low- and high-context communication. In this section, we differentiate the characteristics of low- and high-context communication and link these to cultural I-C, as well as to individuals' self construals and values.

Low- Versus High-Context Communication

Hall (1976) points out that "a high-context (HC) communication or message is one in which most of the information is either in the physical context or internalized in the person while very little is in the coded, explicit, transmitted part of the message. A low-context (LC) communication is just the opposite; i.e., the mass of the information is vested in the explicit code" (p. 79). Using HC communication involves using and interpreting messages that are not explicit, minimizing the content of the verbal message, and being sensitive to others. Using LC communication, in contrast, involves being direct, precise, and open.

Grice (1975) isolates four assumptions regarding coordinated social interaction that are characteristic of LC communication. First, individuals should not give others more or less information than necessary (quantity maxim). Second, people should state only that which they believe to be true with sufficient evidence (quality maxim). Third, individuals' contributions should be pertinent to the context of conversations (relevancy maxim). Fourth, people should avoid obscure expressions, ambiguity, excessive verbosity, and disorganization (manner maxim). These conversational maxims are not characteristic of high-context communication.

LC communication involves transmitting direct, explicit messages (Grice's, 1975, manner maxim). HC communication, in contrast, involves transmitting implicit, indirect messages (see Levine, 1985, for a discussion of direct and indirect messages). When individuals' responses to others'

messages are indirect and ambiguous, the responses may not appear to be relevant to what others said (e.g., they appear to violate Grice's relevancy maxim).

Consistent with Grice's (1975) quality maxim, speaking one's mind and telling the truth are "characteristic of a sincere and honest person" using LC communication (Hofstede, 1991). People using LC communication are expected to communicate in ways that are consistent with their feelings (Hall, 1976). People using HC communication, in contrast, are expected to communicate in ways that "camouflage and conceal speakers' true intentions" (Gudykunst & Ting-Toomey, 1988, p. 100) to maintain harmony in their in-groups.

Speaking one's mind and telling the truth in LC communication requires that individuals be open with others. Openness involves individuals telling others personal information about themselves. Personal information is necessary to predict behavior in LC communication (Gudykunst & Ting-Toomey, 1988). Openness is not characteristic of HC communication. In HC communication, individuals become known to others by telling others the group-based information that is needed to predict their behavior (Gudykunst & Nishida, 1986).

LC communication also involves being precise (Grice's, 1975, quantity maxim), whereas HC communication involves the use of understatements.[3] R. Okabe (1983) argues that HC communication requires transmitting messages through understatement and hesitation (the opposite of Grice's, 1975, quantity maxim). He also points out that competent HC communicators are reserved. Part of being reserved involves being silent. In LC communication, silence is space to be filled (Mare, 1990). Silence often is interpreted by people using LC communication as violating the quantity maxim. In HC communication, in contrast, "silence is a communicative act rather than mere void in communicational space" (Lebra, 1987, p. 343). Lebra argues that silence can be used to indicate truthfulness, disapproval, embarrassment, and disagreement.

I-C and LC Versus HC Communication

Research on cultural differences in communication supports Gudykunst and Ting-Toomey's (1988) argument that LC and HC communication are predominant in individualistic and collectivistic cultures, respectively. Members of individualistic cultures, for example, have been found to be more affect oriented (i.e., base their behavior on their feelings; Frymier, Klopf, & Ishii, 1990) and more inclined to talk (Gaetz, Klopf, & Ishii, 1990) than members of collectivistic cultures. Members of collectivistic cultures are more concerned with avoiding hurting others and imposing on others than are members of individualistic cultures (Kim, 1994). Members of individualistic cultures are more concerned with clarity in

conversations (Kim, 1994) and view clarity as necessary for effective communication (Kim & Wilson, 1994) more than do members of collectivistic cultures. Members of individualistic cultures perceive direct requests as the most effective strategy for accomplishing their goals, whereas members of collective cultures perceive direct requests the least effective (Kim & Wilson, 1994).

Research also indicates that self construals mediate the influence of cultural I-C on individuals' behavior. Kim, Sharkey, and Singelis (1994) found that using interdependent self construals is associated with concern for others' feelings, and using independent self construals is associated with a concern for clarity in conversations (see Kim & Sharkey, 1995, for compatible findings in an organizational setting). Singelis and Sharkey (1995) reported that independent self construals correlated negatively with embarrassability. Singelis and Brown (1995) found that the more collectivistic individuals' cultures, the stronger their interdependent self construals. They reported that the more collectivistic individuals' cultures, the weaker their independent self construal. Their results also indicated that interdependent self construals are related to using HC communication styles, and independent self construals are not related to using HC communication styles.

Values also mediate the influence of cultural I-C on individuals' behavior. Rokeach (1973), for example, found that values influence individuals' readiness for contact with out-group members. Extending this research, Sagiv and Schwartz (in press) reported that individualistic values (e.g., self-direction) are associated positively with Israeli Jews' readiness for contact with Arabs, whereas collectivistic values (e.g., tradition, security) are associated negatively with readiness for contact. Bond (1993) linked Chinese values to the experience and expression of emotions. Feather (1995) observed that the types of values individuals hold influences the valences they attach to different ways to behave. Because values are central to how individuals define situations, but are not tied to specific situations (Feather, 1990), individualistic and collectivistic values should influence the use of low- and high-context communication.

To summarize, given the arguments presented, it can be hypothesized as follows:

H1: Members of individualistic cultures use LC communication more than do members of collectivistic cultures.

H2: Members of collectivistic cultures use HC communication more than do members of individualistic cultures.,

H3: The more individualistic values individuals hold and the more independent their self construals, the more they use LC communication.

H4: The more collectivistic values individuals hold and the more interdependent their self construals, the more they use HC communication.

METHOD

Respondents

Respondents for the present study included 753 college students: 283 (121 males and 162 females) from a moderate-size university in the western United States, 192 (106 males and 86 females) from a moderate-size university in Japan, 168 (127 males and 39 females) from a moderate-size university in Korea, and 110 (33 males and 77 females) from a moderate-size university in Australia. The U.S. sample consisted of six African Americans, 35 Latino Americans, 53 Asian Americans, and 175 European Americans (the percentages are close to the population of the county in which data were collected). The Japanese and Korean samples consisted of all Japanese and Korean nationals. The Australian sample included 77 European Australians, 26 Asian Australians, and 7 persons from other ethnic groups. The average age of the U.S. sample was 23.89 (SD = 5.63), whereas the average age of the Japanese sample was 19.77 (SD = 1.29), the average age of the Korean sample was 21.62 (SD = 2.28), and the average age of the Australian sample was 25.86 (SD = 8.72).

Procedure

A questionnaire was developed to assess LC and HC communication, self construals, and values across cultures. The main purpose of the study was to examine general LC and HC communication styles across cultures, not styles used in particular relationships.

Once the questionnaire was constructed in English, it was translated into Japanese and Korean. The translations were verified by bilingual speakers with discussion. Respondents in the United States completed the questionnaires at home, whereas the Australians, Japanese, and Korean respondents completed the questionnaires in a class setting. It took respondents between 1 hour and 1½ hours to complete the questionnaire.

Measurement of LC and HC Communication Styles

The communication items were drawn from various scales used in past research, and new items were generated for this study. We included items consistent with the conceptualization of LC and HC communication presented earlier. More specifically, we selected items designed to form factors related to direct versus indirect communication, precise versus ambiguous communication, communication based on true intentions versus adjusting communication to maintain harmony, being dramatic versus being reserved, being precise versus using understatements, and disclosing person-based versus disclosing group-based information.

Sixty-two items were written for this study based on Hall's (1976) and Gudykunst and Ting-Toomey's (1988) conceptualizations of LC and HC communication. In addition, the questionnaire included 32 items from Norton's (1978) openness, dramatic, animated, attentive, and contentious scales that tap characteristics of LC communication; 31 items from Wiemann, Chen, and Giles' (1986) Beliefs About Talk survey; 11 items generated by Booth-Butterfield and Booth-Butterfield (1990) for their Affective Orientation Scale; 20 items from Takai and Ota's (1994) Japanese Interpersonal Competence Scale; and two items from Singelis's (1994) measure of interdependent self construals that tap communication. All items included were consistent with the dimensions of LC and HC communication presented earlier.

A total of 158 communication-style items were generated. Respondents answered each item using a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*).

Measurement of Self Construals

The self construal items were drawn from the various scales used to measure self construals and/or personality orientations (i.e., Hamaguchi, 1980; Hui, 1988; Singelis, 1994; Triandis et al., 1985, 1986; Verma, 1992; Yamaguchi, 1994), and additional items were written based on descriptions of self construals across cultures. Hamaguchi's (1980) forced-choice items were reworded so that respondents were asked to answer about only one piece of information. Items from Hui's (1988) I-C scale and Triandis et al.'s (1986) separation from in-group factor that tap self construals also were included. All items selected were designed to tap Markus and Kitayama's (1991) conceptualization of independent or interdependent self construals.

A total of 94 self construal items were generated. Respondents answered each item using a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*).

Measurement of Values

The value items were drawn from several sources. Schwartz and Bilsky's (1990) value questionnaire provided the starting point. The Chinese Culture Connection's (1987) 40 Chinese values, Patai's (1976) discussion of Arab values, and additional values were incorporated based on a review of cross-cultural differences in values.

A total of 100 values were included (approximately equally split between instrumental and terminal values) on the questionnaire. The 44 values that tapped Schwartz's (1992) conceptualization of individualistic and collectivistic tendencies were isolated for study. Respondents

indicated the importance of each value (1 = *not important*, 7 = *of supreme importance*).

RESULTS AND DISCUSSION

The results and discussion are presented in several steps. First, the results for the factor analysis of the communication styles are presented and discussed. Second, the results for the factor analysis of the self construal items are presented and discussed. Third, the results for the factor analysis of the value items are presented and discussed. Fourth, the main effects in the multivariate analysis of covariance analyses (MANCOVA) are presented to test the cultural-level hypotheses, and the findings are discussed. Fifth, the covariates in the MANCOVA are examined to test the individual-level hypotheses, and the findings are discussed. Finally, regression analyses are used to look at the effect of self construals and individual values on communication styles within cultures.

Dimensions of LC and HC Communication Styles

There were 158 communication-style items in the questionnaire. Two items were eliminated from analysis because of a printing error in the Japanese questionnaire, and three items were dropped because of accidental duplication of items on the questionnaire. One hundred fifty-three items, therefore, were submitted to a culture-free factor analysis with standardized scores. Scores for each item were standardized within cultures to eliminate the cultural influence on the way participants in each culture answered the questions.[4] A principal components analysis with equamax rotation was used because correlated factors were expected. To isolate the factors, a minimum primary loading of .40 was used, with the secondary loading being approximately .20 less than the primary loading.[5] Ten factors emerged in the analysis. Two factors were omitted from analysis because the scree plot indicated a substantial drop in eigenvalues between factors 8 and 9. Also, factor 9 did not contain three items that met the loading criteria. Eighty items loaded on the eight factors.[6]

The first factor contained 12 items that focus on respondents' perceptions of their ability to infer others' meanings (e.g., "I catch on to what others mean even when they do not say it directly," "I am not good at figuring out what others think of me" [negative loading]). Seven items in this factor were derived from Takai and Ota (1994), two from Norton (1978), and three items were written for this study. The eigenvalue for this factor was 17.72, and it accounted for 11.4% of the variance. The negatively loaded item was reversed for further analyses. The higher the score on this dimension, the greater respondents' perceptions that they can infer

others' meanings. Combining the unstandardized items yielded the following alphas: United States = .84, Japan = .90, Korea = .84, Australia = .80.

The second factor included 11 items that focus on respondents' tendencies to use indirect/ambiguous communication (e.g., "I communicate in an indirect fashion," "When pressed for an opinion, I respond with an ambiguous position"). This scale included 10 items written for this study and 1 item from Takai and Ota (1994). The eigenvalue for this factor was 8.75, and it accounted for 5.6% of the variance. The higher the score on this dimension, the greater respondents' tendency to use indirect messages. Combining the unstandardized items yielded the following alphas: United States = .79, Japan = .74, Korea = .75, and Australia = .81.

The third factor included 14 items that concerned respondents' interpersonal sensitivity (e.g., "If I have something negative to say to others, I will be tactful in telling them," "I maintain harmony in my communication with others"). Seven of the items were written for this study, 5 were derived from Takai and Ota (1994), and 2 from Norton (1978). The eigenvalue for this factor was 5.93, and it accounted for 3.8% of the variance. The higher the score on this dimension, the greater respondents' tendency to be sensitive to others. Combining the unstandardized items yielded the following alphas: United States = .80, Japan = .75, Korea = .75, and Australia = .87.

The fourth factor included 12 items that deal with speakers' tendencies to use dramatic communication (e.g., "My speech tends to be very picturesque," "I use a lot of colorful words when I talk"). This scale included 9 items from Norton (1978), 2 items written for this study, and 1 item from Wiemann et al. (1986). The eigenvalue for this factor was 4.27, and it accounted for 2.7% of the variance. The negative loading item was reversed for analysis. The higher the score on this dimension, the more dramatic respondents are. Combining the unstandardized items yielded the following alphas: United States = .82, Japan = .82, Korea = .82, and Australia = .87.

The fifth factor included nine items that focus on the tendency of respondents to use feelings to guide their behavior (e.g., "My feelings tell me how to act in a given situation," "I use my feelings to determine how I should communicate"). All nine items were derived from Booth-Butterfield and Booth-Butterfield's (1990) affect orientation scale. The eigenvalue for this factor was 3.66, and it accounted for 2.3% of the variance. The higher the score on this dimension, the more respondents use their feelings to guide their behavior. Combining the unstandardized items yielded the following alphas: United States = .89, Japan = .74, Korea = .80, and Australia = .82.

The sixth factor included eight items that tap respondents' openness in and initiation of communication with others (e.g., "I am an extremely

open communicator," "I readily reveal personal things about myself"). Five of the items were derived from Norton (1978) and three from Wiemann et al. (1986). The eigenvalue for this factor was 2.97, and it accounted for 1.9% of the variance. The higher the score on this dimension, the more open respondents are. Combining the items yielded the following alphas: United States = .81, Japan = .78, Korea = .68, and Australia = .78.

The seventh factor included eight items that deal with respondents' preciseness in communication (e.g., "I like to be accurate when I communicate," "I am a very precise communicator"). This scale included six items from Norton (1978), one from Takai and Ota (1994), and one written for this study. The eigenvalue for this factor was 2.78, and it accounted for 1.8% of the variance. The higher the score on this dimension, the more precise respondents are. Combining the unstandardized items yielded the following alphas: United States = .71, Japan = .71, Korea = .69, and Australia = .65.

The eighth factor included six items that concern respondents' positive perceptions of silence in communication (e.g., "I find silence awkward in a conversation with someone I've just met" [negative loading], "I feel comfortable with silences in conversations"). Five items were derived from Wiemann et al. (1986), and one was written for this study. The eigenvalue for this factor was 2.37, and it accounted for 1.5% of the variance. Negatively worded items were reversed. The higher the score on this dimension, the more positively respondents perceive silence. Combining the unstandardized items yielded the following alphas: United States = .67, Japan = .65, Korea = .63, and Australia = .71.

The eight factors generally were intercorrelated as expected. The correlations among the constructed indexes are presented in Table 1.

The eight dimensions of LC and HC communication styles that emerged in the factor analysis generally are consistent with the theoretical dimensions of LC and HC communication we expected to emerge: direct versus indirect, precise versus ambiguous, communication based on true intentions versus adjusting communication to maintain harmony, being precise versus use of understatements, and disclosing person-based versus group-based information.[7] All of the dimensions predicted were represented in the factor analysis.

The first dimension focuses on respondents' perceived ability to infer the others' intentions, needs, and feelings. This factor is conceptually similar to Cegala, Savage, Brunner, and Conrad's (1982) concept of perceptiveness as a component of communication involvement. Perceptiveness involves taking others' perceptions and motives into consideration during an interaction. On the surface, it may appear that inferring others' meanings is part of HC communication. Indirect communication, however, is taken for granted in HC communication (Hall, 1976). This factor

TABLE 1
Correlations Among the Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Inferring	1.00											
2. Indirect	−.05	1.00										
3. Sensitivity	.34*	.07	1.00									
4. Dramatic	.41*	−.11	.14	1.00								
5. Feelings	.35*	−.04	.25*	.30*	1.00							
6. Openness	.26*	−.31*	.02	.50*	.20*	1.00						
7. Precise	.37*	−.28*	.14*	.42*	.21*	.37*	1.00					
8. Silence	.05	−.02	−.09	.04	.11	.00	−.01	1.00				
9. Interdependent	.10	.21*	.46*	.07	.04	.06	.03	−.18*	1.00			
10. Independent	.37*	−.34*	.26*	.26*	.29*	.21*	.54*	.06	−.16*	1.00		
11. Collectivistic	.11	.06	.31*	.05	.12	.08	.11	−.19*	.48*	−.08	1.00	
12. Individualistic	.28*	-.05	.17*	.23*	.21*	.17*	.36*	-.07	.01	.39*	.40*	1.00

* Significant at .001 (one-tailed test).

emphasizes the listeners' *abilities* to infer speakers' meanings, not the extent to which they actually infer meanings, which, as indicated earlier, is related to perceptiveness. This factor, therefore, is expected to be associated with individualistic tendencies.

The second dimension focuses on using indirect communication. This dimension involves speakers' tendencies to express themselves through indirect and ambiguous communication. Both indirect and ambiguous communication are emphasized in HC communication (Hall, 1976). This factor, therefore, is expected to be associated with collectivistic tendencies.

The third dimension involves interpersonal sensitivity in communicating with others. The items in this factor involve showing respect to others, being tactful, not offending others, using qualifying words, adjusting to others' feelings, and listening carefully to others (e.g., Takai & Ota, 1994). Although these orientations are used to some extent in LC communication, they generally are associated with HC communication. This factor, therefore, is expected to be associated with collectivistic tendencies.

The fourth dimension focuses on the use of dramatic communication. Items defining this dimension involve exaggerating stories, using picturesque speech, colorful words, telling jokes, and being nonverbally expressive (Norton, 1978). Being dramatic is associated with LC communication. This factor, therefore, is expected to be associated with individualistic tendencies.

The fifth dimension focuses on the use of feelings as a base to guide behavior. The items on this dimension are drawn from Booth-Butterfield and Booth-Butterfield's (1990) affect orientation scale. People high in affect orientation are aware of their emotional responses to others and use these responses as a guide to their behavior. This tendency is associated with LC communication (Hall, 1976). In HC communication, individuals often hide their true feelings and behave in ways to maintain harmony in the in-group (e.g., the *tatemae-honne* distinction in Japan). This factor does not focus exclusively on overt communication behavior, but it clearly is a component of LC communication (Gudykunst & Ting-Toomey, 1988), and Booth-Butterfield and Booth-Butterfield demonstrated that affect orientation is related to communication in theoretically predictable ways.

The sixth dimension deals with openness in conversations, and it is related to disclosing person-based information. Items on this dimension are similar to Norton's (1978) openness communication style. Because LC communication places a high value on verbal communication and HC communication places a low value on verbal communication (Lebra, 1987; R. Okabe, 1983), this dimension is associated with LC communication. This factor, therefore, is expected to be associated with individualistic tendencies.

The seventh dimension focuses on precise communication. Items on this dimension are consistent with Grice's (1975) quantity conversational

maxim. Because LC communication emphasizes accuracy and clarity in conversation (R. Okabe, 1983), this dimension is expected to be associated with individualistic tendencies.

The eighth dimension deals with respondents' positive perceptions of conversational silences. This dimension appears to be related to an understated style of communication. Because LC communication places a higher value on verbal communication than does HC communication (R. Okabe, 1983), positive perceptions of conversational silence should be associated with HC communication. This factor, therefore, is expected to be associated with collectivistic tendencies.

Approximately one half of the communication-style items loaded on one of the eight factors. This is not unusual when derived etic measures are constructed, because only items that are common to respondents across cultures load. If there were sufficient cases to conduct within-culture factor analyses, most of the items that did not load would load within one of the four cultures to form culture-specific communication styles.

Independent and Interdependent Self Construals

The 94 self construal items were standardized within cultures and submitted to a pancultural factor analysis. Given the theoretical rationale, the analysis was restricted to a two-factor solution. Because independent and interdependent self construals were not expected to be correlated (e.g., Markus & Kitayama, 1991), a principal components analysis varimax rotation was used. In isolating the items loading on the factors, a minimum primary loading of .40 was used, with the secondary loading being approximately .20 less than the primary loading. Twenty-nine of the items loaded on one of the two factors. There was a small negative correlation (–.16) between the two factors.

The first factor included 14 items that focus on the interdependent self construal (e.g., "I consult with others before making important decisions," "I will sacrifice my self-interest for the benefit of my group"). Eight of the items were derived from Yamaguchi (1994), 3 from Hamaguchi (1980), and 3 from Verma (1992). The eigenvalue for this factor was 10.15, and it accounted for 35.0% of the variance. Combining the unstandardized items yielded the following alphas: United States = .80, Japan = .84, Korea = .85, and Australia = .85.

The second factor included 15 items that tap the independent self construal (e.g., "I should be judged on my own merits," "I prefer to be self-reliant rather than depend on others"). This scale included 6 items written for this study, 4 from Hamaguchi (1980), 3 from Singelis (1994), and 2 from Triandis et al. (1986). The eigenvalue for this factor was 6.60, and it accounted for 22.7% of the variance. Combining the unstandardized

items provided the following alphas: United States = .82, Japan = .77, Korea = .73, and Australia = .83.

The two dimensions of self construals that emerged are consistent with Markus and Kitayama's (1991) conceptualization of independent and interdependent self construals. All items on the independent self construal scale clearly reflect individuals being autonomous, unique people. All items on the interdependent self construal scale, in contrast, reflect individuals being embedded in group relationships that affect their behavior.

Individualistic and Collectivistic Values

As indicated earlier, 44 items on the questionnaire were identified by previous researchers as individualistic or collectivistic values (e.g., Bond, 1988; Chinese Culture Connection, 1987; Schwartz, 1992). These values were standardized within cultures and submitted to a culture-free factor analysis to determine if individualistic and collectivistic values formed one or two factors. Principal components analysis with equimax rotation was used because correlated factors were expected. The same criteria for isolating factors was used in this analysis as in the self construal analysis.

An examination of the nonrotated one-factor solution indicated that most of the loadings were below .30, suggesting that a one-factor solution was not appropriate. Thirty-four of the values loaded on the two-factor solution. As expected, there was a moderate positive correlation (.40) between the two factors.

Nineteen values loaded on the collectivistic factor (e.g., harmony with others, observing rites and social rituals). These values were derived from Bond (1988), the Chinese Culture Connection (1987), and Schwartz (1992). The eigenvalue for this factor was 10.98, and it accounted for 32.3% of the variance. Combining the unstandardized items yielded the following alphas: United States = .90, Japan = .89, Korea = .90, and Australia = .87.

Fifteen values loaded on the individualistic factor (e.g., a sense of accomplishment, independence). These values were derived from Schwartz (1992) and values added for this study. The eigenvalue for this factor was 2.96, and it accounted for 8.7% of the variance. Combining the unstandardized items yielded the following alphas: United States = .82, Japan = .76, Korea = .86, and Australia = .87.

All items on both scales are consistent with Schwartz's (1992) conceptualization of values that serve individualistic and collectivistic interests. The individualistic values included individualistic orientations such as an exciting life, sense of accomplishment, self-cultivation, self-respect, and so forth. The collectivistic values included group-oriented values such as obedience, meeting obligations, harmony, being cooperative, and so forth.

Tests of Cultural-Level Hypotheses

H1 and H2 stated that members of individualistic cultures would use LC communication more than would members of collectivistic cultures, and members of collectivistic cultures would use HC communication more than would members of individualistic cultures. A MANCOVA was used to test the hypotheses. The main effect for culture was used to test H1 and H2, whereas the covariate analyses were used to test H3 and H4. The findings for H1 and H2 are reported in this section.

Bartlett's test of sphericity (635.17, 28*df*, $p < .001$) indicated that a MANCOVA was appropriate. The multivariate main effect for culture was significant (Wilks's lambda = .78; F[24, 2150], $p < .001$). All univariate effects except use of indirect were significant or approached significance: interpreting indirect $F(3, 748) = 8.30$, $p < .001$, $\eta^2 = .03$; sensitivity $F = 6.00$, $p < .001$, $\eta^2 = .03$; dramatic $F = 7.47$, $p < .001$, $\eta^2 = .03$; feeling $F = 2.46$, $p = .06$, $\eta^2 = .01$; open $F = 12.66$, $p < .001$, $\eta^2 = .05$; precise $F = 2.76$, $p < .05$, $\eta^2 = .01$; and silence $F = 29.19$, $p < .001$, $\eta^2 = .12$. The means and standard deviations are presented in Table 2. Planned comparisons (with the mean for United States equal to the mean for Australia, and the mean for Japan equal to the mean for Korea) were computed for all significant main effects. The t values for interpreting indirect ($t = 3.65$, $p < .001$), dramatic ($t = 3.39$, $p < .001$), openness ($t = 3.50$, $p < .001$), and silence ($t = 8.13$, $p < .001$) were significant.

The data partially support H1 and H2. The planned comparisons for interpreting indirect messages, dramatic, and openness are consistent with the general cultural tendencies predicted in the hypotheses. The planned comparison for silence was significant, but the results appear to be inconsistent with expectations. Initially, we expected positive attitudes toward silence to be associated with collectivistic tendencies. The means in the United States and Australia samples, however, are higher than the means for the Japan and Korea samples. We believe that the reason for this is that the factor focuses on positive attitudes toward silence, not on how much silence is used. In collectivistic cultures, silence is used as part of HC communication (e.g., Wiemann et al., 1986), but silence tends to be used as a way to communicate negative messages. To illustrate, three of the four meanings Lebra (1987) isolates for silence in Japan involve negative information being transmitted through silence. Members of collectivistic cultures, therefore, would not necessarily be expected to have a positive view of silence, even though they use it extensively. It also should be noted that silence was not viewed positively in any of the cultures (e.g., the means for all four cultures are below 4, the midpoint of the scale).

The means for the remaining four communication styles are not consistent with the *general* cultural tendencies of the four cultures included

TABLE 2
Means and Standard Deviations

	United States		*Japan*		*Korea*		*Australia*	
	M	SD	M	SD	M	SD	M	SD
Interpret indirect	4.89	.74	4.51	1.03	4.67	.85	4.77	.75
Sensitivity	5.04	.66	5.09	.68	4.93	.62	5.00	.83
Use indirect	3.41	.81	3.40	.79	3.65	.82	3.48	.84
Dramatic	4.36	.87	4.07	.93	3.97	.84	4.14	.99
Feeling	4.87	.96	5.04	.80	4.82	.84	4.83	.82
Openness	4.29	1.00	4.02	1.13	3.68	.89	3.95	1.02
Precise	4.61	.77	4.44	.83	4.49	.76	4.36	.74
Silence	3.63	.84	3.04	.89	3.18	.77	3.78	.92
Independent self construal	5.48	.72	5.43	.70	5.27	.64	5.32	.72
Interdependent self construal	4.37	.69	4.40	.88	4.68	.75	4.49	.71
Individualistic values	5.85	.59	5.80	.65	5.87	.71	5.68	.64
Collectivistic values	4.77	.83	5.02	.82	5.00	.80	4.69	.85

in the study. In most cases, it is the Australia sample that does not fit the expected pattern. One potential explanation why the Australia sample does not fit the expected pattern is that this sample includes 25% Asian Australians. To test this explanation, means for the European Australians were computed. The means for the European Australians, however, did not change the relative ordering of the Australia sample on any of the measures. One interpretation of the present findings, therefore, could be that Australians are more collectivistic in their style of communication than previously was thought. This tendency, nevertheless, may not generalize to other aspects of communication (e.g., behavior in organizations, which was the basis for Hofstede's, 1980, scores).

Another alternative explanation for the findings regarding H1 and H2 is that cultural I-C does not systematically influence LC and HC communication styles. It may be that individual-level factors that mediate the influence of communication styles on behavior (i.e., self construals and values) are better predictors of communication styles. Discussion of this explanation, however, must be postponed until the results for H3 and H4 are presented.

Before proceeding, a potential methodological explanation needs to be presented for why the five communication styles did not fit the expected pattern. Specific samples collected in individualistic and collectivistic cultures do not necessarily correspond to I-C at the cultural level (Kashima, 1989), because there are people with collectivistic tendencies in individualistic cultures and people with individualistic tendencies in collectivistic cultures. Specific samples collected in cultures where individualism is predominant (i.e., the United States and Australia), for example, often are not more individualistic than samples drawn from cultures where collec-

tivism is predominant (i.e., Japan and Korea). Previous research demonstrates that when college students are sampled in Japan and the United States, Japanese college students often are more individualistic than college students in the United States (Gudykunst, Nishida, Chung, & Sudweeks, 1992; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). The present findings for H1 and H2, therefore, may be due to the samples not being representative of cultural I-C in the cultures from which the samples were drawn.

Table 2 presents the means for self construals and values across cultures. These means suggest that the samples do *not* reflect the general cultural tendencies usually associated with the four cultures. To illustrate, the ordering of the means for interdependent self construals is Korea (4.68), Australia (4.49), Japan (4.40), and the United States (4.37). The ordering for means for independent self construals is United States (5.48), Japan (5.43), Australia (5.32), and Korea (5.27). When the means for the communication-style variables are compared with the means for the self construals across the four cultures, clear patterns emerge for the styles that did not fit the general cultural tendencies:

1. For feeling, the pattern of means is approximately the inverse of the order of the means for interdependent self construals and approximately the order of the means for independent self construals (Spearman rank order correlations are –.80 and .80, respectively).
2. For use of indirect, the order is approximately the same as the order of the means for interdependent self construals and approximately the inverse of the order of the means for independent self construals (Spearman rank order correlations are .80 and –.80, respectively).
3. For sensitivity, the pattern of means is approximately the inverse of the means for individualistic values (Spearman rank order correlation = –.80).
4. For precise and silence, the pattern of means is approximately the same as the order of the means for individualistic values (Spearman rank order correlation = .80).[8]

These patterns indicate that even though the means for sensitivity, use of indirect, feeling, precise, and silence do not fit the patterns expected, given the predominant tendencies in the four cultures, they generally fit the individualistic and collectivistic patterns for the four samples collected.[9] Because the present samples are not representative of the cultural dimensions under study, H1 and H2 cannot be rejected outright, because the samples do not provide a fair test of the hypotheses.

Tests of Individual-Level Hypotheses

H3 and H4 stated that the use of independent self construals and holding individualistic values are associated with LC communication, and

using an interdependent self construal and holding collectivistic values are associated with HC communication. Two separate MANCOVAs were computed to test the hypotheses. In both analyses, culture was treated as the independent variable and communication styles were treated as the dependent variables. Self construals were treated as the covariates in one analysis, whereas values were treated as covariates in the other analysis. The two sets of covariates could not be included in the same analysis because of multicollinearity.

There was a significant multivariate effect for the independent and interdependent self construal covariates (Wilks's lambda = .38, $F[16, 1482] = 58.39$, $p < .001$). All univariate effects were significant at the .001 level: interpreting indirect $F(2, 748) = 72.63$, $R^2 = .16$; sensitivity $F = 188.10$, $R^2 = .33$; use of indirect $F = 57.27$, $R^2 = .13$; dramatic $F = 30.51$, $R^2 = .08$; feeling $F = 39.24$, $R^2 = .09$; open $F = 20.34$, $R^2 = .05$; precise $F = 164.89$, $R^2 = .31$; and silence $F = 21.51$, $R^2 = .05$. Both independent and interdependent self construals were significant predictors (with Bs in same direction) for each of the communication styles (see Table 3 for Bs, Betas, and t tests). Because the B coefficients for both self construals were significant predictors, t tests for differences between the B coefficients were computed (Rencher, 1995). Using t tests allows us to determine whether one self construal was a significantly better predictor of the dependent variables than was the other. They are computed by using the B coefficient instead of the mean, and by using the standard error of the B weights squared as estimates for the standard deviations in the t-test formula. The B coefficient for one self construal was significantly higher than the other in all analyses: interpreting indirect $t = 5.17$, $p < .001$ (independent higher); sensitivity $t = 2.40$, $p < .05$ (interdependent higher); use of indirect $t = 9.01$, $p < .001$ (independent higher but negative); dramatic $t = 3.29$, $p < .01$ (independent higher); feeling $t = 4.67$, $p < .001$ (independent higher); open $t = 2.62$, $p < .05$ (independent higher); precise $t = 8.50$, $p < .001$ (independent higher); and silence $t = 3.38$, $p < .01$ (independent higher).

There also was a significant multivariate effect for the individualistic and collectivistic value covariates (Wilks's lambda = .74, $F[16, 1482] = 14.76$, $p < .001$). All univariate effects for the covariates also were significant (at the .001 level, except use of indirect, which was .05): interpreting indirect $F(2, 748) = 32.37$, $R^2 = .08$; sensitivity $F = 43.43$, $R^2 = .10$; use of indirect $F = 3.45$, $R^2 = .01$; dramatic $F = 22.42$, $R^2 = .06$; feeling $F = 17.46$, $R^2 = .04$; open $F = 12.22$, $R^2 = .04$; precise $F = 53.49$, $R^2 = .13$; and silence $F = 8.63$, $R^2 = .02$. With the exception of use of indirect, only one of the values predicted each of the communication styles (see Table 4 for Bs, Betas, and t tests). For indirect, both values were significant predictors, but in the opposite directions.

The results clearly support H3 and H4. Both measures of self construals predicted all LC and HC communication styles, but one self construal

(*text continues on page 536*)

TABLE 3

Regression Coefficients for Self Construals

	Overall		*United States*		*Japan*		*Korea*		*Australia*	
	IND	*INTER*	*IND*	*INTER*	*IND*	*INTER*	*IND*	*INTER*	*IND*	*INTER*
Interpret indirect										
B	.49	.18	.50	.17	.41	.05	.52	.30	.43	.38
Beta	.39	.16	.48	.06	.27	.04	.39	.26	.42	.36
t	11.65***	4.70***	9.00***	2.89**	3.80***	.56	5.49***	3.73***	5.28***	4.56***
Sensitivity										
B	.37	.46	.37	.47	.22	.38	.22	.48	.45	.67
Beta	.34	.51	.40	.48	.06	.49	.23	.58	.39	.57
t	11.25***	16.84***	7.92***	9.68***	3.34***	7.41***	3.62***	9.24***	5.96***	8.54***
Use indirect										
B	−.37	.17	−.40	.28	−.35	.15	−.24	.02	−.40	.19
Beta	−.31	.16	−.36	.23	−.31	.16	−.18	.02	−.35	.16
t	−9.19***	4.74***	−6.63***	4.35***	−4.54***	2.38*	−2.44*	.30	−3.80***	1.77
Dramatic										
B	.36	.13	.20	.19	.56	.18	.46	.17	.23	.06
Beta	.27	.11	.16	.15	.42	.17	.35	.16	.17	.05
t	7.70***	3.16**	2.72**	2.48*	6.12***	2.52*	4.77***	2.13*	1.72	.49
Feeling										
B	.39	.11	.29	.25	.41	.07	.47	.04	.51	−.01
Beta	.31	.09	.22	.18	.36	.07	.36	.04	.45	−.00
t	8.76***	2.66***	3.73***	3.09**	5.13***	1.04	4.85***	.48	5.18***	−.03
Openness										
B	.34	.13	.30	.17	.47	.06	.54	.35	.08	−.10
Beta	.23	.09	.21	.12	.29	.05	.45	.25	.06	−.07
t	6.31***	2.59**	3.63***	2.00*	4.02***	.69	6.57***	3.58***	.57	−.70

Precise										
B	.63	.12	.59	.11	.76	.13	.69	.14	.40	.17
Beta	.56	.12	.55	.10	.64	.14	.58	.14	.39	.16
t	18.25***	3.79***	10.89***	1.93	10.89***	2.30*	9.05***	2.18*	4.44***	1.83
Silence										
B	.04	−.23	.02	−.19	−.17	−.43	−.08	.13	−.13	.23
Beta	.03	−.17	.02	−.13	−.11	−.36	−.07	.09	−.09	.16
t	.80	−4.74***	.32	−2.23*	−1.57	−5.08***	−.87	1.19	−.89	1.64

NOTE: Overall coefficients are from MANCOVA; within-culture coefficients are from regression analyses; IND = independent self construal; INTER = interdependent self construal.
*$p < .05$. **$p < .01$. ***$p < .001$.

TABLE 4
Regression Coefficients for Values

	Overall		*United States*		*Japan*		*Korea*		*Australia*	
	IND	*COLL*	*IND*	*COLL*	*IND*	*COLL*	*IND*	*COLL*	*IND*	*COLL*
Interpret indirect										
B	.38	−.01	.47	.01	.38	.13	.31	.00	.28	−.11
Beta	.28	−.01	.35	.06	.24	.11	.26	.00	.23	−.11
t	7.35***	−.19	5.66***	.26	3.21**	1.44	3.07**	.04	2.26*	−1.15
Sensitivity										
B	.06	.24	.12	.25	.03	.29	.08	.24	−.03	.15
Beta	.06	.29	.11	.32	.03	.34	.09	.31	−.02	.15
t	1.52***	7.65***	1.77	5.24***	.45	4.76***	1.10	3.79***	−.23	1.45
Use indirect										
B	−.11	.09	−.15	.18	−.15	.06	.01	−.04	−.14	.05
Beta	−.09	.09	−.11	.19	−.12	.06	.01	−.04	−.11	.05
t	−2.17*	2.31*	−1.73	2.91**	−1.56	.84	.06	−.48	−1.04	.49
Dramatic										
B	.36	−.06	.33	−.03	.36	.14	.34	−.13	.43	−.19
Beta	.26	−.05	.22	−.02	.25	.12	.28	−.12	.27	−.16
t	6.58***	−1.39	3.49***	−.38	3.45***	1.66	3.34***	−1.46	2.71**	−1.59
Feeling										
B	.26	.04	.17	.19	.24	.05	.40	−.15	.35	−.14
Beta	.19	.04	.10	.16	.20	.06	.34	−.15	.27	−.14
t	4.84***	1.07	1.61	2.52**	2.60*	.74	4.03***	−1.74	2.64**	−1.36
Openness										
B	.27	.01	.40	−.06	.30	.15	.10	.22	.12	−.10
Beta	.17	.01	.23	−.05	.17	.11	.08	.20	.07	−.08
t	4.26***	.19	3.63***	−.81	2.30*	1.44	.95	2.31*	.70	−.82

Precise										
B	.46	−.04	.56	−.14	.48	.10	.44	−.04	.17	.02
Beta	.37	−.04	.43	−.15	.37	.10	.41	−.05	.15	.03
t	10.07***	−1.19	7.08***	−2.42**	5.31***	1.38	5.08***	−.57	1.41	.22
Silence										
B	.01	−.23	−.10	−.08	.15	−.41	.07	−.10	−.33	−.07
Beta	.01	−.19	−.06	−.07	.09	−.32	.06	−.09	−.20	−.06
t	.16	−4.82***	−.90	−1.07	1.26	−4.35***	.67	−1.04	−1.89	−.55

NOTE: Overall coefficients are from MANCOVA; within-culture coefficients are from regression analyses; IND = individualistic values; COLL = collectivistic values.
*$p < .05$. **$p < .01$. ***$p < .001$.

consistently was a better predictor based on *t* tests of differences between the B coefficients. The best predictor consistently supported the hypotheses that independent self construals positively predicted ability to interpret indirect meanings, dramatic, feeling, openness, and precise, and negatively predicted use of indirect messages; and that interdependent self construals positively predicted sensitivity, and negatively predicted positive attitudes toward silence.

The findings for self construals are consistent with previous research. The relationship between independent self construals and preciseness is compatible with Kim et al.'s (1994) finding that independent self construals and need for clarity are related. Similarly, the results for interdependent self construals and sensitivity are consonant with Kim et al.'s data indicating that interdependent self construals are related to concern for others' feelings. The findings regarding independent self construals and feelings can be reconciled with Kashima, Siegel, Tanaka, and Kashima's (1992) argument that individualists want consistency between their attitudes and feelings and behaviors. The findings for feelings also are compatible with Markus and Kitayama's (1994b) position that people employing an independent self construal must express their feelings to define and structure the self. The current research also extends Singelis and Brown's (1995) research on the influence on interdependent self construals on HC communication in Hawaii. The present data suggest that independent self construals are related to LC communication and interdependent self construals are related to HC communication across cultures.

The values that predicted communication styles are consistent with the hypotheses that individualistic values positively predict ability to interpret indirect meanings, dramatic, feeling, open, and precise, and negatively predict use of indirect messages; and that collectivistic values positively predict sensitivity and use of indirect messages, and negatively predict positive attitudes toward silence. The present findings are consistent with Rokeach's (1973) argument that values are central components in predicting individuals' behavior. The current results also are compatible with Feather's (1990) contention that values provide expectations for individuals' behavior.

The main issue that needs to be addressed with respect to H3 and H4 is why both self construal measures predicted communication styles. We believe there is a plausible methodological explanation for these findings. Blalock (1979) points out that when there are more than 200 respondents, small fluctuations in regression coefficients will be statistically significant. He argues that when the larger of the significant beta weights is approximately 2½ times the smaller of the significant beta weights, the smaller

beta weight would be expected to be nonsignificant with a smaller sample size. Our sample size was relatively large (i.e., $N = 753$). All except one of the larger beta weights in the self construal analysis meets this criterion. As indicated earlier, the larger beta weights are consistent with the hypotheses.

In discussing the findings for H1 and H2, we pointed out that one plausible explanation for the lack of support for the hypotheses is that individual-level factors that mediate cultural I-C are better predictors of LC and HC communication styles than is cultural I-C. The findings for H3 and H4 tend to support this explanation. Self construals and values consistently predicted the eight LC and HC communication styles. Self construals and values also explained a larger percentage of the variance in LC and HC communication styles than did cultural I-C. Further, self construals generally predicted LC and HC communication styles better and explained more variance than did values. The present findings, therefore, suggest that LC and HC communication styles are based on individuals' self construals rather than on cultural I-C.

Within-Culture Analyses

Regression analyses were computed within cultures to examine the influence of self construals and values on LC and HC communication styles. The analyses for self construals are presented in Table 3. An examination of Table 3 indicates that, generally, one or both of the self construals were significant predictors of LC and HC communication styles across cultures. There were, however, a few analyses where neither self construal was a significant predictor of communication styles: silence in Korea; dramatic, open, and silence in Australia.

The regression analyses for values are presented in Table 4. The patterns that emerged are consistent with the overall analysis in the MANCOVA. There were several analyses where neither of the values was a significant predictor of communication styles: silence in the United States; use of indirect and silence in Japan; use of indirect and silence in Korea; sensitivity, use of indirect, open, precise, and silence for Australia.

It is possible that collapsing Schwartz's (1992) value types into individualistic and collectivistic values may be the reason for the nonsignificant findings within cultures. Additional analyses using Schwartz's value types, therefore, were conducted. For these analyses six value types were computed: power (authority, wealth, social recognition), achievement (capable, ambitious, influential, intelligent, self-respect, accomplishment, industrious), self-direction (freedom, independent, self cultivation, imaginative), tradition (accepting position in life, humble, moderate, respect for

tradition, observing rites and rituals), conformity (politeness, honoring parents, obedient, self-discipline, harmony, being cooperative, solidarity with others, courtesy), and benevolence (helpful, honest, responsible, true friendship, mature love).[10] All indexes had reliabilities of at least .60 across cultures (similar to or above those reported by Schwartz, 1992).

Only those analyses where neither individualistic nor collectivistic values was a significant predictor were examined. The results indicate that all but two communication styles in Australia (open and precise) can be predicted by one or more of the value types. In the U.S. analysis, power predicted positive attitudes toward silence (B = –.13, Beta = –.16, t = –2.30, $p < .05$). In the Japan analyses, achievement predicted the use of indirect (B = –.23, Beta = –.24, t = –2.42, $p < .05$) and power predicted silence (B = –.15, Beta = –.19, t = 2.00, $p < .05$). In the Korea analyses, self-direction (B = .23, Beta = .21, t = 1.92, $p < .05$) and benevolence (B = –.20, Beta = –.18, t = –1.68, $p < .05$) predicted use of indirect, and conformity predicted silence (B = –0.46, Beta = –.40, t = –3.12, $p < .01$). In the Australia analyses, benevolence (B = .42, Beta = .33, t = 2.76, $p < .01$) and power (B = –.14, Beta = –.23, t = –1.89, $p < .05$) predicted sensitivity, benevolence (B = –.37, Beta = –.29, t = –2.37, $p < .05$) and tradition (B = .21, Beta = .26, t = 2.00, $p < .05$) predicted use of indirect, and power (B = –.20, Beta = –.26, t = –2.13, $p < .05$) and self-direction (B = .28, Beta = .18, t = 1.69, $p < .05$) predicted silence.

The within-culture analyses generally were consistent with the overall analyses. In the analyses using self construals as the independent variables, there were very few styles within the four cultures that could not be predicted by one of the two self construals. In the analyses using values as the independent variables, there were several communication styles that could not be predicted by either individualistic or collectivistic values. All except two of these styles, however, could be predicted by one or more of Schwartz's (1992) value types. The value types that predicted these communication styles were consistent with the overall analyses (e.g., if individualistic values predicted the communication style in the overall analysis, one of the individualistic value types predicted the style within cultures).

The only communication style within culture not predicted by either self construals or values was openness in Australia. One possible explanation for this is that openness may not be a culture-specific communication style in Australia. It is not possible to test this explanation, however, because there are not a sufficient number of respondents in the Australia sample to factor analyze the communication-style items (or to factor analyze the self construal or value items).[11] Derived etic measures often are not good predictors within cultures because not all of the culture specific (i.e., emic) aspects of the measures are not included.

CONCLUSION

The purpose of the present study was to examine the influence of cultural I-C, self construals, and individual values on LC and HC communication styles across cultures. Derived etic measures of LC and HC communication styles, independent and interdependent self construals, and individualistic and collectivistic values were developed. These factors, however, may not be the same as the culture-specific factors that would emerge within the four cultures. The present data support the hypotheses that independent self construals and individualistic values mediate the influence of cultural I-C on LC communication, and that interdependent self construals and collectivistic values mediate the influence of cultural I-C on HC communication. The results further suggest that self construals and values are better predictors of and account for more variance in LC and HC communication styles than does cultural I-C. Self construals also generally account for more variance in LC and HC communication styles than do values.

The present results should *not* be interpreted as indicating that cultural I-C does not influence communication. As pointed out earlier, cultural I-C should directly influence communication guided by cultural norms and rules. Self construals and values, in contrast, should influence individuals' styles of communication that cut across situations. Future research is needed, however, to isolate situation-specific explanations about how the influence of cultural I-C is mediated by self construals and individual values for specific aspects of communication. The general measure of self construal presented may not predict behavior in specific situations because individuals activate specific self construals in specific situations (Turner, 1987; e.g., collectivists may activate interdependent self construals with general in-group members but use independent self construals with close friends or out-group members). To predict communication in specific situations, the self construal measure must be adapted to the specific situation (i.e., to tap the self construal activated in the situation). Similarly, the value measures may need to be modified to apply to specific situations (for an alternative, see Feather, 1995).

Finally, data from four cultures were used to test the hypotheses, but the collectivistic cultures were both Asian cultures. It is possible that there may be variations in non-Asian collectivistic cultures (e.g., Latin, African cultures). Also, the Australian sample did not always fit the expected pattern for individualistic cultures. Future research, therefore, is needed to determine if the results generalize to other individualistic and collectivistic cultures.

NOTES

1. Personality also is an important mediator of the influence of culture on behavior, but it is not included here. We have not included personality for two reasons. First, measures of idiocentrism and allocentrism generally have low reliability. Second, personalities and self construals can be distinguished conceptually, but there often is overlap in terms of the measurement of personality orientations and self construals. We included items from the various measures of personality orientations that are related to self construals on our questionnaire.

2. Schwartz (1992) points out that power and authority at the cultural level are given priority in collectivistic cultures, but they tend to serve individual interests at the individual level; loyalty and responsibility at the cultural level are given priority in individualistic cultures, but they serve collective interests at the individual level.

3. Gudykunst and Ting-Toomey (1988) use the term *succinct* where we use *understated*, and *exacting* where we use *precise*.

4. The data also were analyzed following procedures suggested by Leung and Bond (1989). There were only very minor variations in the results of the two analyses (e.g., one or two items' loading on the factors changed). Because the within-culture standardization is the most direct way to remove cultural bias in the data, it is presented here.

5. Stevens (1986) suggests .40 as a minimum criteria for factor loadings. He also suggests that the number of respondents needed for stable factors is five times the number of items being factor analyzed (153 X 5 = 765). The 753 respondents in the study should be sufficient for stable factors.

6. Copies of the factor analyses for the communication styles, self construals, and values are available from the first author.

7. A second-order factor analysis was conducted. Four scales loaded on a low-context factor: use of indirect (-), dramatic, openness, and precise. Three scales loaded on a high-context factor: interpreting indirect, sensitivity, and feelings. Scales constructed based on this analysis, however, have low reliabilities and, therefore, the scales were not used in the analysis.

8. With $N = 4$, the Spearman rank order correlation must be 1.0 to be significant at the .05 level.

9. The data in each culture were examined for response sets to rule out their presence as an alternative explanation. No response sets were observed.

10. Hedonism and stimulation were omitted because there was only one value for each type on the questionnaire.

11. Given the number of items and number of cases within cultures, only the values could be factor analyzed within the United States, Korea, and Japan samples.

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